

TECH-ROD 309

- I. **DESCRIPTION:** Tech-Rod 309 electrodes are used for the welding of similar alloys in wrought and cast form, as well as for dissimilar metals such as stainless steels to carbon or low alloy steels. They also can be used for a barrier layer before cladding. Welding of Types 405 and 430 can be accomplished without preheat, while Types 410, 442, and 446 may call for preheating of a minimum of 300°F (150°C).
- II. **APPROVALS:** Manufactured under Quality System approved by ASME, ISO9001. Meets AWS 5.4 Class E309-16.

III. **CHEMICAL COMPOSITION**

Carbon	.08
Manganese	1.70
Silicon	.52
Chromium	23.5
Nickel	12.3
Sulfur	.021
Phosphorus	.024
Nitrogen	.05
Iron	Balance

MECHANICAL PROPERTIES

Tensile Strength	
87,500 PSI	600 MPA
Yield Strength	
59,500 PSI	400 MPA
Elongation	35%

IV. **WELDING PARAMETERS**

Direct Current
Electrode + Ve

AMPERAGES:

3/32"	65-75
1/8"	90-105
5/32"	120-135
3/16"	135-155

(For vertical welding amperages are to be reduced by 10 to 15 amps)

V. **PACKAGES AVAILABLE:**

3/16"-10# can, 5/32"-10# can, 1/8"-10# Can, 3/32"-8# can